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# United States Department of Agriculture,

U. S. BUREAU OF PLANT INDUSTRY,

Office of Grain Investigations,

WASHINGTON, D. C.

## 3 MILO;

(A form of *Andropogon sorghum*.)

Milo is an important grain crop in the southern half of the Plains region, especially in the western parts of Texas, Oklahoma, and Kansas and in eastern New Mexico and Colorado. It is one of the most drought resistant of all the sorghum varieties. This seed represents an early, low, and uniform strain, bearing most of its heads erect instead of pendent ("goose-necked"), as in ordinary milo. It has been developed through selection by Mr. A. H. Leidigh at our experimental farm, Amarillo, Tex. (elevation 3,600 feet; rainfall 22 inches), where it grows 4.5 feet high, matures in about 100 days, and yields an average of 40 bushels to the acre. It has been ripened at elevations of 5,500 and 6,000 feet in eastern Colorado and 2,000 feet in central South Dakota (lat. 44° N.), but it is not yet a certain crop at these extremes of elevation and latitude.

**Planting.**—Milo should be planted two or three weeks later than the average date for planting corn. The date of sowing will thus vary with the latitude and elevation: In south Texas, from late April to May 10; in northwest Texas, western Kansas, and eastern Colorado, May 15 to 30; and in Nebraska and South Dakota, still later. It may be listed or surface planted, as local conditions require. Sowing is commonly done with the corn planter, using special sorghum plates. The rows should be 36 to 42 inches or more apart. From experiments to date, our best grain yields have been secured where the plants were about 8 inches apart in the row. This requires about 4 pounds of good seed to the acre. Six pounds to the acre are sent this year, and, if possible, the cooperators should test two or three different rates of seeding, such as 4, 6, and 8 pounds to the acre, which should produce plants 8, 6, and 4 inches apart, respectively. These rates of seeding may be secured by changing the speed of the plate, where possible, or by using plates with different numbers of holes. The speed or number of holes required can be readily figured out for each machine and the result tested by running the planter on a floor or smooth hard roadway where the kernels dropped can be observed.

**Cultivation.**—For milo, cultivation should be much as for corn. One or more harrowings while the plants are small and at least two good cultivations at later dates are required. Three or four cultivations will usually be repaid.

**Harvesting.**—Milo is a grain crop and should be cut when the heads are thoroughly mature. Most commonly the crop is cut with the corn binder and cured in the shock. The grain binder may also be used. In small areas the heads are often cut by hand. This strain has been selected for erect heads, so that it may be harvested by some form of header. The grain header or row header for kafirs may be used. A more suitable form of row header is much needed.

**Thrashing.**—The ordinary grain separator is used for thrashing. To prevent cracking much of the seed, the concaves may be replaced by boards or part of the concave and cylinder teeth may be removed. The speed of the cylinder should also be reduced to about 600 revolutions a minute. If the grain is to be used for feeding stock, it is not injured by cracking, but cracked milo is worthless for seed. The heads may be removed from bound milo by a hatchet or broadax, or by a long knife attached at the point like a tobacco cutter, or the bundle may be held in the cylinder until the seed is thrashed out and then thrown to one side. It is not usually profitable to thrash the whole bundle, though this is frequently done, especially where labor is scarce.

**Feeding.**—Milo grain is nearly equal to corn in feeding value. It may be fed as thrashed grain or in bundles to all classes of stock. It has a beneficial laxative effect, thus differing from kafir.

**Seed selection.**—Each grower should select his own seed with care. Improved strains like this are not yet to be had on the market. Selection should be made in the field before the whole crop is ripe. Early, low, and uniform stalks, bearing erect heads should be chosen. Do not select large heads unless the stand is good. Select from the stalk that produces the largest possible head with the smallest row space. Never select heads from suckers and in general avoid stalks which produce suckers.

**Suggestions.**—Your cooperative test is of great value not only to us but to you and to your part of the State. Give your plot no less and no more than good field care, but keep accurate records of dates and yields. When the experiment has been completed by the thrashing and weighing of the grain, send in your report, with 2 or 3 pounds of the seed. We reserve the right to call for as much seed as we furnish you. This improved strain should be carefully compared for earliness, evenness of height and ripening, and for yield with the ordinary milo grown in your neighborhood.

MARCH 12, 1908.







